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# Autism Spectrum Disorder Diagnostic Assessment Report: John Example

This report was prepared for the purpose of the client's clinical and/or educational management.

The report is not intended for, and is unsuitable for, use in legal proceedings.

The information contained in this report is sensitive and confidential and must be treated accordingly.

*The results should only be interpreted by an appropriately trained professional.* 

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This report adheres to the diagnostic criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition-Text Revision (DSM-5-TR) for Autism Spectrum Disorder (ASD) and also addresses the latest draft of the National Guidelines for the Assessment and Diagnosis of Autism Spectrum Disorders in Australia.

### **BIOGRAPHICAL DETAILS**

Name: John Example
Date of Birth: 14/11/2008
Date of Assessment: 04/01/2024

Age at Assessment: 11 years 5 months

Gender: Male

# **REFERRAL INFORMATION**

John was referred to Psychological and Educational Consultancy Services (PECS) by Dr James Smith (General Practitioner) for a *Comprehensive Psychological Assessment* and indication of whether the results are reflective of an individual with Autism Spectrum Disorder (ASD).

Additional assessment and screening for disorders commonly associated with ASD (e.g., ADHD, anxiety, depression) was also conducted to assist with any possible comorbidity and/or differential diagnosis implications that may be present.

# INFORMED CONSENT AND ASSENT

John's parent(s) were informed of the reason for the assessment, the assessment components, and that the results would be used to compile a report which would be provided to them and the referrer (if applicable).

John's parent(s) indicated that they understood all that was conveyed to them and signed a Consent Form acknowledging that they consented to the administration of the assessment; and for the report to be generated and disseminated accordingly.

Immediately prior to the testing, John provided verbal assent indicating his agreement to participate in the assessment.

### **BRIEF BACKGROUND INFORMATION**

# 1. Pregnancy, Birth, and Development:

John's mother did not experience any significant illnesses during her pregnancy with John.

John's parents reported that there were no concerns in relation to maternal consumption of alcohol and/or substances during pregnancy.

John was born with no apparent complications and did not require assistance with breathing nor time in the neonatal intensive care unit.

John reached all of the major developmental milestones, apart from speech, within or before the expected age range.

# 2. Speech and Language:

John's parents reported that John's speech was delayed and that he received a year of speech therapy to help with speech sound difficulties, some of which remain.

A speech and language assessment conducted in 2022 diagnosed John with a Language Disorder with impairment in both expressive and receptive language.

### 3. Handedness and Coordination:

John is solely right-handed and right-footed, has hypermobility, and recently completed an OT assessment and subsequent intervention is in place to address both fine and gross motor skill difficulties.

# 4. Sight and Hearing:

Normal auditory acuity was reported; however, the most recent testing was more than 3 years ago.

John's most recent vision test was between 1–2 years ago, and he currently requires the assistance of glasses.

# 5. Sleep Quality:

John's parents reported that John has no difficulties falling asleep, staying asleep, nor waking up in the morning.

### 6. Peer Relations:

John's parents reported that has difficulty forming strong friendships. Though John likes to have friends, his parents believe that he has difficulties with interpersonal skills, which, in the past, have impeded his ability to make new friends.

John also enjoys talking with people that he is familiar with and comfortable around, but can appear nervous when speaking with new people, or being in new surroundings.

John's teacher reported that John has difficulties socialising, maintaining friendships, and making eye contact, which have hindered his ability to form strong friendships at school.

# 7. Academic / Educational:

John is currently having difficulty with reading, spelling, and written expression.

John's teacher reported that he also has difficulty with reading comprehension, often unable to infer or extrapolate information or ideas from literal information presented in a text.

John also has trouble with line spacing and word boundaries when writing.

John is currently on an Individual Education Plan/Documented Plan which commenced in 2021 and has been receiving Equitable Access Arrangements and Reasonable Accommodations since Year 3.

# 8. Memory:

John's parents reported that they have no concerns in relation to John's short-term or long-term memory.

### 9. Behaviour and Mood:

John's parents reported that he has some sensory sensitivity and difficulty controlling his anger.

John's teacher reported that John tends to repeat favoured words such as "margin together" accompanied with strange facial expressions.

John will also often not ask to use the toilet if needed, instead engaging in inappropriate scratching and fidgeting to suggest he wants to go to the toilet. Calming strategies have been used to address these behaviours.

### 10. Health/Mental Health/Medical/Medication:

John's is prescribed Nasonex for allergies. There are no concerns over anxiety or depression. John's parents reported no previous history of self-harm or suicidal ideation and that they don't believe he is currently at risk of suicide.

John is not currently receiving counselling; however, he has previously seen his school psychologist for strategies to help with dealing with social conflict and being in unfamiliar situations.

# 11. Family History of Mental Health Conditions:

There is no family history of any mental health or educational issues.

### 12. Past Assessment/Testing:

• NAPLAN Year 3:

o Reading: average

Persuasive Writing: well below averageSpelling: above average

Grammar & Punctuation: average Numeracy: average

### **COGNITIVE ASSESSMENT**

Please note, a Cognitive Assessment is conducted due to ASD DSM-5-TR Criteria E requiring Intellectual Disability/Global Developmental Delay to be ruled out as better accounting for the disturbance being displayed.

A critical understanding is that an individual with an Intellectual Disability/Global Developmental Delay is not automatically excluded from being given an Autism Spectrum Disorder diagnosis.

# **Cognitive Test Administered:**

Date of Administration

(1) Wechsler Intelligence Scale for Children-Fifth Edition (iPad version, WISC-V, 2016) 20/01/2024

### **WISC-V Overview:**

The Wechsler Intelligence Scale for Children- Fifth Edition (WISC-V) is an individually administered comprehensive clinical instrument for assessing the cognitive ability of children aged of 6 years through to 16 years 11 months. The WISC-V has Australian norms and Australian language adaptation and takes approximately 60 minutes for the core subtests. Please see the Appendix for Index and Subtest descriptions.

### **WISC-V Examiner's Details:**

TEST ADMINISTRATOR: Dr Shane Langsford

QUALIFICATIONS: Bachelor of Psychology (1994, UWA)

Bachelor of Education with First Class Honours (1996, UWA) Doctor of Philosophy in Educational Psychology (1999, UWA)

REGISTRATION: AHPRA/PBA Fully Registered Psychologist (PSY0001578191)

# **WISC-V Test Behaviour:**

The examiner was able to establish good rapport with John.

John was observed to have put in an appropriate amount of effort throughout the assessment, and he displayed a normal affect which remained consistent throughout the assessment.

John engaged in verbal stereotypy and sporadically produced laughing outbursts throughout the assessment for no apparent reason.

In the Similarities subtest, John was often adamant that some items could not be similar, despite prompting from the examiner to think about how they might be.

# **WISC-V Test Results:**

Age at Testing: 11 years 5 months

Table 1: WISC-V Index Scores

			95%	
	Composite	Percentile	Confidence	Qualitative
WISC-V Indexes	Score	Rank	Interval	Description
PRIMARY INDEXES				
Verbal Comprehension Index (VCI)	95	37	87-103	Average
Visual Spatial Index (VSI)	115	84	106-122	High Average
Fluid Reasoning Index (FRI)	115	84	106-122	High Average
Working Memory Index (WMI)	77	6	71-88	Very Low
Processing Speed Index (PSI)	78	7	72-91	Very Low
Full Scale Intelligence Quotient (FSIQ)	96	39	91-102	Average
ANCILLARY INDEXES				_
Auditory Working Memory Index (AWMI)	78	7	73-85	Very Low
Nonverbal Index (NVI)	97	42	91-103	Average
General Ability Index (GAI)	105	63	99-111	Average
Cognitive Proficiency Index (CPI)	78	7	72-87	Very Low

Index scores have a mean Composite Score of 100 (50th percentile) and a standard deviation of 15. Percentile Rank refers to John's standing among 100 individuals of similar age.

Therefore, a Percentile Rank of 50 indicates that John performed exactly at the average level for his chronological age. Composite scores and Confidence Intervals are intentionally removed from parent copies of the report as per APS policy

Table 2: WISC-V Subtest Scaled Scores

Subtests	Scaled Score	Percentile Rank	Age Equivalent
Verbal Comprehension Index			
Similarities	10	50	12:10
Vocabulary	8	25	10:6
*Information	9	37	11:6
Visual Spatial Index			
Block Design	13	84	>16:10
Visual Puzzles	11	61	11:8
Fluid Reasoning Index			
Matrix Reasoning	12	75	>16:10
Figure Weights	11	61	11:8
*Picture Concepts	12	75	>16:10
Working Memory Index			
Digit Span	7	16	8:10
Picture Span	6	9	8:03
*Letter-Number Sequencing	5	5	7:10
Processing Speed Index			
Coding	5	5	8:2
Symbol Search	9	37	11:10

See Appendix 1 for complete subtest descriptions. \* Supplementary Subtest

Table 3: WISC-V Core Subtest Discrepancies From 10 Primary Subtest Mean Score

	~	Mean	D 100	Critical	.05 Strength	
	Scaled	Scaled	Difference	Cutoff	or	Base
Subtest	Score	Score	From Mean	Value	Weakness	Rate@
Verbal Comprehension						
Similarities	10	9.2	0.8	2.75		
Vocabulary	8	9.2	-1.2	3.16		
*Information	9	9.2	-0.2	2.50		
Visual Spatial						
Block Design	13	9.2	3.8	2.31	Strength	
Visual Puzzles	11	9.2	1.8	3.55		
Fluid Reasoning						
Matrix Reasoning	12	9.2	2.8	2.99	High	
Figure Weights	11	9.2	1.8	1.43		
*Picture Concepts	12	9.2	2.8	2.50	Strength	
Working Memory						
Digit Span	7	9.2	-2.2	2.33	Low	
Picture Span	6	9.2	-3.2	2.87	Weakness	
*Letter-Number Sequencing	5	9.2	-4.2	2.50	Weakness	
Processing Speed						
Coding #	5	9.2	-4.2	3.77	Weakness	
Symbol Search #	9	9.2	-0.2	4.10		

Comparison score mean derived from the ten primary subtest scores (MSS-P).

Table 4: WISC-V WMI and PSI Subtest Discrepancies From GAI Index Subtest Mean

Please note, the statistics provided in this table are not standard WISC-V analyses and are provided as a guide only

	Subtest	GAI	Difference	Nominal	.05 Strength
	Scaled	Mean	From	Critical	or
Subtest	Score	Score	GAI Mean	Cutoff	Weakness
<b>Working Memory</b>					
Digit Span	7	11	-4.0	2.50	Weakness
Picture Span	6	11	-5.0	2.50	Weakness
* Letter-Number Sequencing	5	11	-6.0	2.50	Weakness
Processing Speed					
Coding	5	11	-6.0	2.50	Weakness
Symbol Search	9	11	-2.0	2.50	Low

Scores referred to as 'High' or 'Low' fall close to the critical value for statistical significance \*Non-core subtest.

<sup>@</sup> Base rate refers to the clinical significance (vs Ability Sample) - <15% = clinically significant.

Scores referred to as 'High' or 'Low' fall close to the critical value for statistical significance

<sup>\*</sup>Supplementary Subtest #Paper administration of the Coding and Symbol Search subtests were utilised.

### ADAPTIVE BEHAVIOUR ASSESSMENT

Please note, an adaptive behaviour assessment is conducted due to it providing a wealth of information to address DSM-5-TR Criterion D in a latter section (i.e. clinically significant impairment in important areas of functioning). An adaptive behaviour assessment is considered an essential component of a "gold standard" assessment by the Department of Communities – Disability Services.

# **Adaptive Behaviour Tests Administered:**

Adaptive Behaviour Assessment System–Third Edition (ABAS-3, 2015)

### **ABAS-3 Overview:**

The Adaptive Behaviour Assessment System – Third Edition provides a comprehensive, norm-referenced assessment of adaptive skills for individuals ages birth to 89 years. The ABAS-3 may be used to assess an individual's adaptive skills for diagnosis and classification of disabilities and disorders, identification of strengths and limitations, and to document and monitor an individual's progress over time.

### **ABAS-3 Test Results:**

(1) Parent/Primary Caregiver Form (Ages 5-21) – Completed by John's Mother

Table 1: Sum of Scaled Scores to Composite Score Conversions

			95%	
	Standard	Percentile	Confidence	Qualitative
Composite	Score	Rank	Interval	Range
<b>General Adaptive Composite (GAC)</b>	64	1	60-68	<b>Extremely Low</b>
Conceptual	63	1	57-69	Extremely Low
Social	56	0.2	49-63	Extremely Low
Practical	75	5	68-82	Low

Adaptive Domain scores have a mean of 100 (50th percentile) and a standard deviation of 15. Percentile Rank refers to John's standing among 100 individuals of a similar age.

Table 2: Raw Score to Scaled Score Conversions

Skill Areas	Scaled Scores	Qualitative Range
Communication	5	Low
Community Use	7	Below Average
Functional Academics	2	Extremely Low
Home Living	1	Extremely Low
Health and Safety	9	Average
Leisure	2	Extremely Low
Self-Care	5	Low
Self-Direction	3	Extremely Low
Social	1	Extremely Low

Scaled scores have a mean of 10 (50th percentile) and a standard deviation of 3. Percentile Rank refers to John's standing among 100 individuals of a similar age.

# (2) Teacher Provider Form (Ages 5-21) – Completed by John's Teacher

Table 1: Sum of Scaled Scores to Composite Score Conversions

			95%	
	Standard	Percentile	Confidence	Qualitative
Composite	Score	Rank	Interval	Range
<b>General Adaptive Composite (GAC)</b>	43	<0.1	40-46	<b>Extremely Low</b>
Conceptual	53	0.1	49-57	Extremely Low
Social	58	0.3	54-62	Extremely Low
Practical	45	< 0.1	41-49	Extremely Low

Adaptive Domain scores have a mean of 100 (50th percentile) and a standard deviation of 15. Percentile Rank refers to John's standing among 100 individuals of a similar age.

Table 2: Raw Score to Scaled Score Conversions

Skill Areas	Scaled Scores	Qualitative Range
Communication	1	Extremely Low
Community Use	1	Extremely Low
Functional Academics	1	Extremely Low
Home Living	1	Extremely Low
Health and Safety	1	Extremely Low
Leisure	2	Extremely Low
Self-Care	1	Extremely Low
Self-Direction	2	Extremely Low
Social	1	Extremely Low

Scaled scores have a mean of 10 (50th percentile) and a standard deviation of 3. Percentile Rank refers to John's standing among 100 individuals of a similar age.

# **Adaptive Behaviour Summary:**

Parent-Report GAC = Extremely Low (1<sup>st</sup> percentile)
Teacher-Report GAC = Extremely Low (0.1<sup>st</sup> percentile)

The Skill Areas results illustrate significant impairment in multiple important areas of his current functioning.

# ASD SYMPTOMOLOGY ASSESSMENT

# **Checklists Administered:**

Autism Spectrum Rating Scales (ASRS): Long Form (ASRS -L, 2014)

# **ASRS Overview:**

The Autism Spectrum Rating Scales (ASRS) is a multi-informant assessment of Autism Spectrum Disorder in children and adolescents between 6 and 18 years of age.

The checklists take into account aspects of the individual's home, school, and social settings to provide a focused and thorough assessment of Autism Spectrum Disorder and the co-morbid problems most commonly associated.

# **ASRS Checklist Results:**

# (1) ASRS Parent Rating Scale:

ASRS Subscales	T-Score*	Percentile	Classification
ASRS TOTAL SCORE	66	95	<b>Elevated Score</b>
ASRS SCALES			
Social/Communication	73	99	Very Elevated Score
Unusual Behaviours	64	92	Slightly Elevated Score
Self-Regulation	57	76	Average Score
DSM-5 SCALE	66	95	<b>Elevated Score</b>
TREATMENT SCALES			
Peer-Socialisation	74	99	Very Elevated Score
Adult Socialisation	56	73	Average Score
Social/Emotional Reciprocity	70	98	Very Elevated Score
Atypical Language	70	98	Very Elevated Score
Stereotypy	56	73	Average Score
Behavioural Rigidity	86	96	Elevated Score
Sensory Sensitivity	47	38	Average Score
Attention	57	76	Average Score

<sup>\*</sup>T-scores have a mean of 50 and a standard deviation of 10.

<sup>\*</sup>T-scores above 60 are deemed by the checklist authors to be clinically significant.

# (2) ASRS Teacher Rating Scale:

ASRS Subscales	T-Score*	Percentile	Classification
ASRS TOTAL SCORE	84	99	Very Elevated Score
ASRS SCALES			
Social/Communication	82	99	Very Elevated Score
Unusual Behaviours	83	99	Very Elevated Score
Self-Regulation	66	95	Elevated Score
DSM-5 SCALE	85	99	<b>Very Elevated Score</b>
TREATMENT SCALES			
Peer-Socialisation	81	99	Very Elevated Score
Adult Socialisation	71	98	Very Elevated Score
Social/Emotional Reciprocity	84	99	Very Elevated Score
Atypical Language	80	99	Very Elevated Score
Stereotypy	77	99	Very Elevated Score
Behavioural Rigidity	72	99	Very Elevated Score
Sensory Sensitivity	79	99	Very Elevated Score
Attention	63	90	Slightly Elevated Score

<sup>\*</sup>T-scores have a mean of 50 and a standard deviation of 10.

# **Summary of ASRS results:**

John's T scores exceeded the cut-off for **8** subscales on the Parent-report and **13** subscales on the Teacher-report.

The ASRS Total Score is a summary score and measures the extent to which the individual's behavioural characteristics are similar to the behaviours of youth diagnosed with Autism Spectrum Disorder.

The Parent-Report ASRS yielded a *T*-Score of 66 (95<sup>th</sup> percentile) for the ASRS Total Score which falls within the Elevated Score category.

The Teacher-Report ASRS yielded a *T*-Score of 84 (99<sup>th</sup> percentile) for the ASRS Total Score which falls within the Very Elevated Score category.

<sup>\*</sup>T-scores above 60 are deemed by the checklist authors to be clinically significant.

### AUTISM SPECTRUM DISORDER DIAGNOSTIC CRITERIA AS PER DSM-5-TR

There are seven DSM-5-TR criteria for Autism Spectrum Disorder, separated into two domains: **Social Communication and Interaction (A)** and **Restricted, Repetitive Patterns of Behaviour (B)**. To meet the diagnostic criteria for Autism Spectrum Disorder, <u>all three</u> criteria from the Social Communication and Interaction domain (A) and at <u>least two</u> criteria from the Restricted, Repetitive Patterns of Behaviour domain (B) must be met.

The difficulties must have been present in the early developmental period; cause clinically significant impairment in social, occupational, or other important area of functioning; and not be better explained by intellectual disability or global developmental delay.

These criteria are addressed below for John, based on information gathered from direct observation, parent clinical interview, and parent checklist information.

# **DSM-5-TR CRITERIA**

# A. PERSISTENT DEFICITS IN SOCIAL COMMUNICATION AND SOCIAL INTERACTION ACROSS MULTIPLE CONTEXTS, AS MANIFESTED BY THE FOLLOWING, CURRENTLY OR BY HISTORY:

A1. Deficits in social-emotional reciprocity (e.g., abnormal social approach; failure of normal back-and-forth conversation; reduced sharing of interests, emotions, or affect; failure to initiate or respond to social interactions).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

### Abnormal social approach:

- John is more socially naïve than his peers
- In the past, John has touched/approached other people inappropriately
- John uses other people's bodies to communicate
- John uses another person's hand like a tool, by grabbing and placing it on what he wants
- John tends to invade other people's personal space (e.g., being too close when he speaks to someone)

# Failure to successfully participate in normal back and forth conversation:

- John does not respond to his mother's and father's voices
- John finds it difficult to take turns in a conversation
- John always needs to talk about his favourite subject
- John does not initiate conversations with others just to talk or chat
- When others make comments to John, but do not ask questions, he will not say anything in response
- John does not like to use small talk
- John has difficulty understanding what is not explicitly stated (e.g., making inferences)
- John has difficulty understanding nonliteral and ambiguous meanings of language (e.g., idioms, humour, metaphors, and multiple meanings that depend on the context for interpretations)
- John does not understand simple questions, directions, and jokes
- John uses language that is immature for his age
- John has an odd way of speaking

# Reduced sharing of interests:

- John does not bring toys or books to his parents to show them what he is doing
- John does not play ball by rolling, kicking or throwing it back and forth
- John does not understand sharing/turn taking in games
- John has no interest in what games others want to play, or what others want to do
- John is not interested in other people's interests
- John does not offer to share his things

# Reduced sharing of emotions/affect:

- John does not smile in greeting when approaching someone to initiate an interaction or conversation.
- John does not smile when he sees his parents for the first time after they have been away for an extended time
- John does not smile back at his mother and father when they smile at him
- John appears to have abnormalities in relation to affection
- John will not initiate a hug or kiss without having been asked to do it
- John does not share his excitement with others for example, after drawing a picture or building something that he really likes with blocks or Lego
- John does not get excited when others praise him
- In a new or disturbing situation, John does not look at his parents for comfort
- John does not change his behaviour based on others emotional responses (e.g., if others laugh, he will not necessarily try to make them laugh again, and when others frown and are quiet, he will not stop and pay attention)
- John has difficulty displaying appropriate behaviour for the different social contexts
- John finds it difficult to interpret expressions on other people's faces

# Lack of empathy:

- John does not change his behaviour based on others' emotional responses (e.g., if they are sad, upset or hurt)
- John's facial expression does not change if he notices that others are upset
- When John's parents are upset, sad or ill, he will not try to comfort them
- John will only show comfort in one situation; namely,
- Overall, John rarely shows any empathy

# Lack of initiation of social interaction:

- John does not ask his mother and father questions about objects, situations, or people
- John does not do things to try and make others laugh
- John does not initiate interaction unless he needs help
- John appears can be unaware of the presence of others

### Poor social imitation:

- When John's parents say, "I'm going to get you" or cover their eyes for peek-a-boo, John does not get excited for what happens next
- John does not play imitative games such as pat-a-cake, peek-a-boo or "so big". Furthermore, John will not cover his face to play peek-a-boo
- John does not imitate his mother and father when they make nonsense sounds like raspberries or tongue clicking
- John does not imitate his mother and father when they stick out their tongue or make faces
- John does not imitate his mother and father when they wave bye-bye, clap their hands for pat-acake or shake their head "no"
- John does not play other imitative games with his parents. For example; he does not imitate his parents when they are doing housework such as dusting, sweeping or cooking. Additionally, he does not pretend to feed or take care of a dolls or stuffed animals
- John does not make hand gestures or movements to familiar songs such as "itsy-bitsy-spider" or "wheels on the bus". Additionally, John does fill in words in familiar songs like "wheels on the bus".

A2. Deficits in nonverbal communicative behaviours used for social interaction (e.g., poorly integrated verbal and nonverbal communication; abnormalities in eye contact and body language; deficits in understanding and use of gestures; total lack of facial expressions and nonverbal communication).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

Impairment in social use of eye contact:

- In general, John does not look others in the eye when he wants something
- John does not turn his head to look at others when they start talking or doing things next to him
- John does not look at his parents as they walk into the room
- When John's parents are right in front of him, he turns his eyes to avoid looking at them
- John does not look back and forth to his parents faces as other children would

# Impairment in the use and understanding of body postures:

• John rarely faces his body towards the person that is speaking to him

# Impairment in the use and understanding of gestures:

- John does not use simple gestures to direct others attention or to request something (e.g., pointing at a toy, reaching up to be picked up, waving bye-bye to let others know that he wants to go)
- Additionally, John does not use other common gestures, such as blowing a kiss, clapping for job well done, or even putting his finger to his lip for quiet
- John finds it difficult interpreting gestures or facial expressions used by others to communicate with him
- John does not wave to greet people
- John does not nod his head to indicate yes and no
- When others point to show John a toy or a picture in a book, he does not appear to respond by looking

# Abnormal volume, pitch, intonation, rate, rhythm, stress, prosody, in speech:

- John has an odd way of speaking; for example, It is of unusual rate and rhythm and can be described as staccato, or monotone
- John has a tendency to speak in too high a volume
- John has a tendency to speak too fast

# Abnormalities in use of facial expressions:

- John's parents have noticed that his facial expression is different than other children his age
- John's exhibits a limited range of emotional expressions that match the situation, e.g., he does not smile, frown, or raise his eyebrows in surprise
- John cannot show his parents when he feels guilty, surprised, amused, afraid, or disgusted
- John has abnormalities in terms of mood (e.g., giggling or weeping for no apparent reason)
- John does not show/display varied facial expression
- John does not effortlessly/readily exchange social smiles

# Lack of coordinated verbal and nonverbal language:

- John does not have the ability to coordinate verbal and nonverbal communication; for example,
- John does not coordinate the use of common words and gestures together (e.g., pointing to an object and saying "look Mommy," waving goodbye and saying "bye-bye", and shaking his head and saying "no")

A3. Deficits in developing, maintaining, and understanding relationships (e.g., difficulties in adjusting behaviour to suit various social contexts; difficulties in sharing imaginative play or in making friends; absence of interest in peers).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

### Absence of interest in others:

- John is not interested in making friends
- John prefers to be involved in solitary activities
- John appears to be in his own world most the time
- John does not seem to care what other people think of him

# Deficits in developing and maintaining relationships/friendships, appropriate to developmental level:

- John has zero friends
- John does not talk about other children; or ask about inviting children over to play
- John does not watch other children while they are playing
- John does not try to talk to or join other children in their play; for example, at the park and school
- John will not go over and play close to other children
- John has been observed to actively avoid other children
- When there are more than two people playing with John, it is in a parallel fashion or not very interactive
- John's relationships with both children and adults is described as "abnormal"; for example, John attempts to but is unsuccessful in developing friendships

# Difficulties adjusting behaviour to suit social contexts:

- John needs to direct play when he is with other children and adults
- John has trouble following cooperative rules for games, unless they are his own
- John has difficulty with adjusting his behaviour to suit the varying social contexts
- John does not appear to notice when others lack interest in an activity
- John does not appear to realise when he is not welcome in a play or conversational setting
- John does not realise that certain things he does bother other people
- John does not seem to understand when he is being teased and/or bullied
- John tends to ask socially inappropriate questions (e.g., asks personal questions and makes personal statements or comments inappropriate to the social context)
- John does not adhere to social conventions or codes of conduct
- John has been observed to laugh or smile in situations that do not seem funny to most people
- John tends to be intrusive (e.g., barges into peoples' rooms)

# Difficulties with imagination:

- John does not engage in "dress-up" and/or "make-believe" play
- John does not have a good imagination and does not like fiction books

- B. RESTRICTED, REPETITIVE PATTERNS OF BEHAVIOUR, INTERESTS, OR ACTIVITIES, AS MANIFESTED BY AT LEAST TWO OF THE FOLLOWING, CURRENTLY OR BY HISTORY:
- B1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypes; lining up toys or flipping objects; echolalia; idiosyncratic phrases).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

# Stereotyped or repetitive speech:

- John appears to mix up the pronouns, for example, "you want..." when he means "I want..." or "he wants..." instead of "I want..."
- John uses odd, indirect, idiosyncratic phrases when communicating
- John uses language that can only be understood by family or those that are close to them
- John will often immediately repeat what others say (immediate echolalia)
- John will repeat the same phrase over and over in exactly the same way, or use scripted language
- John makes nonsense/meaningless noises and words during play (i.e., jibberish)
- John uses the same tone of voice each time he speaks
- John often gives a running commentary on what he is doing

# Stereotyped or repetitive motor movements:

- John has physical mannerisms that look the same each time (e.g., flapping hands when excited, walking on his toes, flicking his fingers, spinning or rocking his body, walking or pacing in a pattern, waving hands in front of face)
- John displays this pacing when he is upset more than any other situation

# Stereotyped or repetitive use of objects:

- John does not play with toys as expected
- John collects sticks and rocks
- John does not appear to pretend toys or objects are something else; for example, a banana as a phone or a block as an airplane
- John plays with toys in an unusual way (e.g., rolling or dropping objects over and over)
- John always plays with toys in the same way (e.g., lining Lego and blocks by colour and size).
- John often engages in repetitive play (doing something over and over)

B2. Insistence on sameness, inflexible adherence to routines, or ritualised patterns of verbal or nonverbal behaviour (e.g., extreme distress at small changes; difficulties with transitions; rigid thinking patterns; greeting rituals; need to take same route or eat same food every day).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

### Insistence on sameness:

• Has to have the same as his brother

### Adherence to routine:

- John has rigid rituals and routines he must follow
- If John's routine is interrupted, or he cannot complete it, he will throw a tantrum
- John sits in the same seat at the dining table and /or in the car

# Ritualised patterns of verbal and nonverbal behaviour:

- John repetitively asks questions about particular topics
- John needs to touch toys/objects in a certain way

# Excessive resistance to change:

- John has great trouble with transitions; for example, if his parents tell him that he has to do something else, he will go into a panic and start waving his hands and hitting his head
- John parents usually give John a 30-minute warning prior to needing to transition to allow him to prepare
- John reacts to changes in his schedule or changes in his environment by panicking and getting upset
- Minor changes in eating routines cause difficulty for John
- John won't let anyone change his room

# Rigid thinking:

- John is unable to understand humour
- John is unable to understand non-literal aspects of speech such as irony or implied meaning; for example, 'looks could kill'
- John excessively rigid, inflexible, and rule bound in behaviour; for example, when playing board games, the rules must be followed to a T
- John will also tell other children in the classroom not to call out

B3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects; excessively circumscribed or perseverative interests).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

Interests that are abnormal in intensity:

• John has a special interest in one toy, activity, and subject that is unusual in its intensity

# Interests that are abnormal in focus:

• John has interests that seem unusual for his age and intelligence

Focus on the same few objects, topics or activities:

• John is fixated by toys or objects that are shiny or that light up and spin

Preoccupation with numbers, letters, and/or symbols:

• John has a preoccupation with numbers, letters, and symbols

# Being overly perfectionistic:

- John exhibits perfectionistic traits in almost all that he does
- If he can't do something perfectly the first time, he gets enormously upset

# Excessive focus on nonrelevant or non-functional parts of objects:

- John only pays attention to part of his toys
- John has a preoccupation with parts of objects
- John tends to dismantle objects, for example, he is often unscrewing things so he can see what is on the inside

### Unusual memory profile:

- John has an unusually good long-term memory for the details of special interests, family activities, vacations, and/or movies
- John has difficulty with short-term memory and / or working memory

# Attachment to an unusual inanimate object:

- In the past, John has been highly attached to an inanimate object
- John often takes it to bed

# Insistence on carrying around or hold specific or unusual objects:

- John always/often insists on keeping certain objects with him
- John tends to play with objects that are not usually toys

# Unusual fears

• John has abnormalities in relation to fear

B4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature; adverse response to specific sounds or textures; excessive smelling or touching of objects; visual fascination with lights or movement).

# Information collected by the Psychologist (Dr Shane Langsford) as part of his assessment:

# Abnormal tolerance for pain:

• John appears to have a high pain threshold

# Unusual sensory exploration with objects:

• John tends to play with toys by touching them to his lips, smelling, sniffing and licking them

# Difficulties with texture or touch:

- John is overly sensitive to touch
- John forcefully presses his face, head, and body against people and furniture
- John is overly interested in the way things feel, and enjoys touching and rubbing certain surfaces
- John dislikes wearing certain clothes, for example, won't wear tight clothes, won't wear long sleeves or short sleeves, resists tags in clothes, or seams in socks
- John does not like having his teeth or hair brushed
- John does not like having his hair or face washed
- John does not like having his hair, fingernails, and/or toenails cut
- John will only eat certain types of foods, for example, he refuses to eat certain textures, or refuses to eat foods that are touching or mixed, or foods that are a specific temperature, or will only eat food that comes out of a specific carton or package
- John prefers to avoid messy activities such as hand painting

# Unusual visual exploration / activity:

- John tends to peer or look at things for long periods of time
- John brings toys very close to his face, look out of the side of his eyes, or lay his head on the floor and look from the side at toys such as the wheels turning on a toy car

# Visual sensitivity:

• John avoids swings, jungle gyms, and being thrown in the air

### Sensitivity to smell:

• Nil

### Sensitivity to sound:

- John seems to notice every small noise in the environment
- John is fearful of some loud sounds, for example, vacuum, lawnmower
- John regularly puts his hands over his ears in response to ordinary sounds
- John's parents have reported having to adjust what they do because John is so upset by particular noises
- John often gets unusually irritated by particular sounds such as people coughing

# Engages in self-injurious behaviour:

- John engages in self-injurious behaviour, for example, he hits his head with his hand
- When younger, John used to run himself into a wall and bang his head on benches

# C. SYMPTOMS MUST BE PRESENT IN THE EARLY DEVELOPMENTAL PERIOD (BUT MAY NOT BECOME FULLY MANIFEST UNTIL SOCIAL DEMANDS EXCEED LIMITED CAPACITIES, OR MAY BE MASKED BY LEARNED STRATEGIES IN LATER LIFE):

John's parents reported that they had become concerned about John's social skills and restricted routine from a very early age.

# This criterion is rated as having been Met.

### D. SYMPTOMS CAUSE CLINICALLY SIGNIFICANT IMPAIRMENT IN SOCIAL, OCCUPATIONAL, OR OTHER IMPORTANT AREAS OF CURRENT FUNCTION.

Observations, parental information and checklist results (i.e. ABAS) indicate that John's difficulties cause significant impairment in multiple important areas of his current functioning.

# This criterion is rated as having been Met.

# E. THE DISTURBANCE IS NOT BETTER ACCOUNTED FOR BY INTELLECTUAL DISABILITY OR GLOBAL DEVELOPMENTAL DELAY.

John's cognitive profile (VSI=84<sup>th</sup> percentile, FRI=84<sup>th</sup> percentile, and GAI=63<sup>rd</sup> percentile) illustrates that he does not have an intellectual disability.

This criterion is rated as having been Met.

### F. SPECIFIERS:

Without accompanying Intellectual Impairment Intellectual Impairment:

Language Impairment: With Language Impairment

### **G. SEVERITY LEVELS:**

Severity	Criteria A:	Criteria B:	
Levels	<b>Social Communication</b>	Restricted and Repetitive Behaviours	
Level 3:	Severe deficits in verbal and nonverbal social	Inflexibility of behaviour, extreme difficulty	
Requiring	communication skills cause severe	coping with change, or other restricted/ repetitive	
Very	impairments in functioning, very limited	behaviours markedly interfere with functioning	
Substantial	initiation of social interactions, and minimal	in all spheres. Great distress/difficulty changing	
Support	response to social overtures from others.	focus or action.	
	Marked deficits in verbal and nonverbal social	Inflexibility of behaviour, difficulty coping with	
Level 2:	communication skills; social impairments	change, or other restricted/repetitive behaviours	
Requiring	apparent even with supports in place; limited	appear frequently enough to be obvious to the	
Substantial	initiation of social interactions and reduced or	casual observer and interfere with functioning in	
Support	abnormal response to social overtures from	a variety of contexts. Distress and/ or difficulty	
	others.	changing focus or action.	
	Without supports in place, deficits in social	Inflexibility of behaviour causes significant	
	communication cause noticeable	interference with functioning in one or more	
Level 1:	impairments. Has difficulty initiating social	contexts. Difficulty switching between activities.	
Requiring	interactions and demonstrates clear examples	Problems of organisation and planning hamper	
Support	of atypical or unsuccessful responses to social	independence.	
	overtures of others. May appear to have		
	decreased interest in social interactions.		

Criteria A-Social Communication Severity:

**Level 2: Requiring Substantial Support** 

Criteria B-Restricted and Repetitive Behaviours Severity: Level 2: Requiring Substantial Support

# SUMMARY OF THE ASD DSM-5-TR CRITERIA AND LEVEL OF SUPPORT REQUIRED

A. Social	<b>Communication and Interaction</b>	B. Restricted, Repetitive Patterns of Behavio		
1.	Criterion Met		1.	Criterion Met
2.	Criterion Met		2.	Criterion Met
3.	Criterion Met		3.	Criterion Met
			4.	Criterion Met
Total Met	3	Tot	al Met	4
Severity	Level 2-Requiring substantial support	Sev	erity	Level 2-Requiring substantial support
C. Preser	t in Early Developmental Period		D. Sym	ptoms Cause Clinically Significant
				Impairment
1.	Criterion Met		1.	Criterion Met
E. No Int	tellectual Disability/Global Delay	F. Specifiers		
1.	Criterion Met	1.	Withou	t accompanying Intellectual Impairment
		With Language Impairment		

As indicated in the summary table above, John meets sufficient DSM-5-TR criteria for a diagnosis of Autism Spectrum Disorder.

The level of severity for <u>both</u> Social Communication <u>and</u> Restricted and Repetitive Behaviours is <u>Level 2-Requiring substantial support</u>.

Intellectual Impairment is not present, however, Language Impairment is present.

### COMORBIDITY AND DIFFERENTIAL DIAGNOSIS SCREENING ASSESSMENT

# **Global Screening Test Administered:**

(1) Child & Adolescent DsychDrofiler (CAPP; Langsford, Houghton, & Douglas, 2014)

# **CAPP Outline:**

The CAPP is a reliable and valid 126 item instrument that utilises three separate screening forms; the Self-Report Form (SRF), Parent-report Form (PRF), and Teacher-report Form (TRF) for the simultaneous screening of 14 of the most prevalent disorders in children and adolescents.

The CAPP has been continually developed over the past 20 years, including validation against large mainstream and clinical samples, as well against other well-known instruments (e.g., Beck, Conners, etc).

The CAPP comprises screening criteria that mirror the symptom count and diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition* (DSM-5: American Psychiatric Association: APA, 2013). For example, a positive screen for Attention-Deficit/Hyperactivity Disorder: Predominantly Inattentive Presentation indicates that the symptom count was 6 or more of the 9 DSM-5 Inattentive items for a child 16 years of age and under.

For more information about the PsychProfiler, please see www.psychprofiler.com

### **CAPP Results:**

John self-reported positive screens for:

- Autism Spectrum Disorder
- Speech Sound Disorder
- Specific Learning Disorder with Impairment in Reading
- Specific Learning Disorder with Impairment in Written Expression

# John's parents reported positive screens for:

- Separation Anxiety Disorder
- Attention-Deficit/Hyperactivity Disorder: Predominantly Inattentive Presentation
- Autism Spectrum Disorder
- Speech Sound Disorder
- Language Disorder
- Specific Learning Disorder with Impairment in Reading
- Specific Learning Disorder with Impairment in Written Expression

# John's teacher reported positive screens for:

- Attention-Deficit/Hyperactivity Disorder: Combined Presentation
- Autism Spectrum Disorder
- Speech Sound Disorder
- Language Disorder
- Specific Learning Disorder with Impairment in Reading
- Specific Learning Disorder with Impairment in Written Expression

Please note that any indication of a positive screen on the CAPP does not constitute a formal diagnosis.

A positive screen merely indicates that the individual has met sufficient criteria for a disorder to warrant further investigation by an appropriate professional.

The full list of 14 disorders screened for is available at www.psychprofiler.com

# **CONNERS 4 ADHD BEHAVIOURAL ASSESSMENT**

# **Checklists Administered:**

(1) Conners 4 Long Form (Conners 4, 2022)

# **Conners 4 Overview:**

The Conners 4 is a multi-informant (Self, Parent, and Teacher) assessment of Attention Deficit/Hyperactivity Disorder in children and adolescents. The checklists consider aspects of the individual's home, school, and social settings to provide a focused and thorough assessment of symptoms and impairments related with Attention Deficit/Hyperactivity Disorder and the problems most commonly associated with it.

# **Checklist Results:**

# (1) Conners 4 Self-Report:

Conners 4 Parent-Report Subscales	Percentile*	Classification
Inattention/Executive Dysfunction	98	Very Elevated
Hyperactivity	95	Very Elevated
Impulsivity	87	Slightly Elevated
Emotional Dysregulation	96	Elevated
Depressed Mood	89	Slightly Elevated
Anxious Thoughts	99	Very Elevated
Schoolwork	99	Very Elevated
Peer Interactions	91	Slightly Elevated
Family Life	82	Average
DSM ADHD Inattentive Symptoms	98	Very Elevated
DSM ADHD Hyperactive-Impulsive Symptoms	96	Very Elevated
DSM Total ADHD Symptoms	98	Very Elevated
DSM Oppositional Defiant Disorder Symptoms	85	Slightly Elevated
DSM Conduct Disorder Symptoms	95	Slightly Elevated

CONNERS 4 ADHD INDEX	% Probability	Guideline
Likelihood of ADHD	89%	High

The ADHD Index score is a probability % figure derived from the 12 items within the checklist that the author believes best differentiate individuals with ADHD from those in the general population.

	Symptom
DSM-5 Symptom Scale: Parent-Report	Count
DSM ADHD Inattentive Symptoms	8
DSM ADHD Hyperactive-Impulsive Symptoms	7

# (2) Conners 4 Parent-Report

Conners 4 Parent-Report Subscales	Percentile*	Classification
Inattention/Executive Dysfunction	95	Very Elevated
Hyperactivity	84	Average
Impulsivity	58	Average
Emotional Dysregulation	97	Very Elevated
Depressed Mood	98	Very Elevated
Anxious Thoughts	97	Very Elevated
Schoolwork	90	Very Elevated
Peer Interactions	82	Slightly Elevated
Family Life	88	Slightly Elevated
DSM ADHD Inattentive Symptoms	94	Very Elevated
DSM ADHD Hyperactive-Impulsive Symptoms	78	Average
DSM Total ADHD Symptoms	91	Elevated
DSM Oppositional Defiant Disorder Symptoms	89	Elevated
DSM Conduct Disorder Symptoms	91	Average

CONNERS 4 ADHD INDEX	% Probability	Guideline
Likelihood of ADHD	98%	Very High

	Symptom
DSM-5 Symptom Scale: Parent-Report	Count
DSM ADHD Inattentive Symptoms	8
DSM ADHD Hyperactive-Impulsive Symptoms	2

# (3) Conners 4 Teacher-Report:

Conners 4 Teacher-Report Subscales	Percentile*	Classification
Inattention/Executive Dysfunction	93	Very Elevated
Hyperactivity	81	Average
Impulsivity	56	Average
Emotional Dysregulation	97	Very Elevated
Depressed Mood	98	Very Elevated
Anxious Thoughts	98	Very Elevated
Schoolwork	91	Very Elevated
Peer Interactions	82	Slightly Elevated
Family Life	88	Slightly Elevated
DSM ADHD Inattentive Symptoms	95	Very Elevated
DSM ADHD Hyperactive-Impulsive Symptoms	78	Average
DSM Total ADHD Symptoms	91	Elevated
DSM Oppositional Defiant Disorder Symptoms	90	Elevated
DSM Conduct Disorder Symptoms	91	Average

CONNERS 4 ADHD INDEX	% Probability	Guideline
Likelihood of ADHD	96%	Very High

	Symptom
DSM-5 Symptom Scale: Self-Report	Count
DSM ADHD Inattentive Symptoms	7
DSM ADHD Hyperactive-Impulsive Symptoms	2

# **CONNERS 4 ADHD BEHAVIOURAL ASSESSMENT SUMMARY:**

# ADHD:

Subscales classified as "Slightly Elevated", "Elevated" and "Very Elevated" "indicate a problem in that area. Furthermore, the greater number of subscales that show 'elevation', the greater likelihood that the Conners 4 scores indicate a moderate to severe problem.

John's scores exceeded the cut-off for 13 Subscales on the Self-report Conners checklist, 10 on the Parent-report checklist, and 10 on the Teacher-report checklist.

John's self-report score on the ADHD Index indicates that there is an **89% probability** that he has ADHD, (unless another factor/diagnosis better explains the behaviours reported).

John's parent-report score on the ADHD Index indicates that there is a **98% probability** that he has ADHD, (unless another factor/diagnosis better explains the behaviours reported).

John's teacher-report score on the ADHD Index indicates that there is a **96% probability** that he has ADHD, (unless another factor/diagnosis better explains the behaviours reported).

# Anxiety and Depression:

The Depressed Mood and Anxious Thoughts subscale results suggest that Depression and Anxiety warrants further investigation and/or intervention.

# Behavioural Difficulties:

The DSM Conduct Disorder Symptoms and DSM Oppositional Defiant Disorder Symptoms subscale results suggest that behavioural difficulties are present and warrant further investigation and/or intervention.

# **DSM-5-TR ADHD CRITERIA ASSESSMENT**

# **Checklists Administered:**

(1) ADHD DSM-5-TR Criteria – Parent Completion (American Psychiatric Association, 2022)

	INATTENTION	Yes
	(Only behaviours occurring for 6 months or more are ticked)	(✓)
A1	Often fails to give close attention to details or makes careless mistakes	$\checkmark$
<b>A2</b>	Often has difficulty sustaining attention in tasks or play activities	$\checkmark$
A3	Often does not seem to listen when spoken to directly	✓
A4	Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace	✓
A5	Often has difficulty organizing tasks and activities	✓
A6	Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort	✓
A7	Often loses things necessary for tasks or activities	✓
A8	Is often easily distracted by extraneous stimuli	✓
A9	Is often forgetful in daily activities	
	YES TOTAL	8

	HYPERACTIVITY AND IMPULSIVITY	Yes
	(Only behaviours occurring for 6 months or more are ticked)	<b>(</b> ✓)
A10	Often fidgets with or taps hands or feet or squirms in seat	✓
A11	Often leaves seat in situations when remaining seated is expected	<b>✓</b>
A12	Often runs about or climbs in situations where it is inappropriate, or feels restless	✓
A13	Often unable to play or engage in leisure activities quietly.	✓
A14	Is often "on the go," acting as if "driven by a motor	✓
A15	Often talks excessively.	✓
A16	Often blurts out an answer before a question has been completed	✓
A17	Often has difficulty waiting their turn	<b>√</b>
A18	Often interrupts or intrudes on others	<b>√</b>
	YES TOTAL	9

	Clinically significant symptoms	Yes	No	NA
В	Have the several inattentive or hyperactive-impulsive symptoms been present prior to age 12 years?	✓		
C	Are the several inattentive or hyperactive-impulsive symptoms present in two or more settings	✓		
D	Is there clear evidence that the inattentive or hyperactive-impulsive symptoms interfere with, or reduce the quality of, social, academic, or occupational functioning?	✓		
E	Do the symptoms occur exclusively during the course of schizophrenia or another psychotic disorder; and/or are not better explained by another mental disorder			

# **DSM-5-TR ADHD CHECKLIST CONCLUSION:**

Total number of Inattention criterion met = 8 Total number of Hyperactive-Impulsive criterion met = 9

John meets the DSM-5-TR criteria for Attention-Deficit/Hyperactivity Disorder: Combined Presentation (ADHD-CP) on this checklist.

Any comorbidity and/or differential diagnosis implications are to be considered by the Medical Specialist.

# **CONCLUSIONS AND STATEMENT OF DIAGNOSIS**

### **AUTISM:**

John meets sufficient DSM-5-TR criteria for a **provisional diagnosis** of Autism Spectrum Disorder; requiring <u>substantial support</u> for <u>both</u> deficits in social communication, as well as restricted and repetitive patterns of behaviour.

Observations, parental information and checklist results (i.e. ABAS) indicate that John's difficulties cause significant impairment in multiple important areas of his current functioning.

Intellectual Impairment is not present, however, Language Impairment is present.

A <u>formal diagnosis</u> requires a Paediatrician or Child Psychiatrist with experience assessing for Autism Spectrum Disorder to review this report and concur with this ASD finding.

### **ADHD:**

John's background information, interview information, parent and teacher-report PsychProfiler screens, high DSM-5-TR ADHD checklist results, high Conners Rating Scale behavioural results and cognitive profile (i.e., depreciated Working Memory, Processing Speed) suggest ADHD is a possibility and warrants further investigation/consideration by Dr Smith.

### **DEPRESSION:**

The Conners 4 results indicate that depression warrants further investigation by Dr Smith. A risk assessment concluded that John is at low risk of self-harm.

### **ANXIETY:**

The background information, interview information, and Conners 4 results indicate that anxiety warrants further investigation.

### **ORAL LANGUAGE:**

The background information, interview information, and positive PsychProfiler screens for Language Disorder and Speech Sound Disorder indicate further assessment by a Speech Pathologist would be wise.

### RECOMMENDATIONS

Please note, PECS does not provide micro-strategies (e.g., sit student at front of classroom, etc) as part of their recommendations. PECS provides recommendations on what further assessment is required, what intervention is necessary, and who is the most appropriate to provide the assessment/intervention recommended.

### **GP INVOLVEMENT**

- (1) John should once again be seen by Dr Smith (General Practitioner) now that this new information is available for incorporation into his overall assessment.
- (2) Due to the large degree of information supporting ASD, it is recommended that John be seen by a Paediatrician / Child Psychiatrist for the purpose of a formal decision on the presence of ASD.

Please note that a GP referral is required to see a Medical Specialist.

Please take your report to your GP appointment so they can see the assessment results supporting possible ASD Please ensure that you notify PECS of which Medical Specialist you book in with so a report can be forwarded to them.

# CHILD PSYCHIATRIST/PAEDIATRIC INVOLVEMENT:

(1) John should be seen by a Child Psychiatrist or Paediatrician for the purpose of a formal decision of a diagnosis of Autism Spectrum Disorder, and consideration of the comorbidity and differential diagnosis implications identified.

### SPEECH PATHOLOGIST INVOLVEMENT:

(1) John should continue Speech Pathology to further develop his speech and receptive and expressive language skills.

### NDIS INVOLVEMENT:

(1) Should the Child Psychiatrist/Paediatrician concur with the Autism Spectrum Disorder diagnosis, confirmation of that in writing should be sent to NDIS, along with a copy of this report and the Speech Pathologist's report.

### OCCUPATIONAL THERAPIST INVOLVEMENT:

(1) John should see an Occupational Therapist to assist with coordination and sensory sensitivity issues.

### **SCHOOL INVOLVEMENT:**

(1) A case-conference involving John's parents and the key school personnel should be held to discuss John's individual learning requirements.

### **ADHD COACHING:**

(1) John's parents may wish to contact an ADHD Coach for assistance with ADHD management and behavioural strategies.

### **ADHD Coaches Australasia**

www.adhdcoachesaustralasia.online

Please note that strategies to assist with poor concentration, low attention and distractibility are beneficial to people with these characteristics even if they are not formally diagnosed with ADHD

### **ADHD RESOURCES:**

(1) John's parents may wish to access the ADHD WA library for assistance with ADHD and behaviour management resources.

### ADHD WA

Suite B, 11 Aberdare Rd (cnr) Hospital Ave, NEDLANDS WA 6009 (08) 6457 7544 hello@adhdwa.org www.adhdwa.org
Open 9.30am to 12.30pm, Monday to Friday

ADHD WA is a support, information and advocacy agency, founded in 1993 for people with ADHD and associated conditions. They work with individuals, teenagers and adults living with learning differences their families and partners. They also support those who treat, teach and work with people living with ADHD.

(2) John's parents may also wish to access further information from the following organisations:

### **ADHD Australia**

info@adhdaustralia.org.au www.adhdaustralia.org.au

ADHD Australia aims to be a voice for positive change for people living with ADHD and to help build a community that fully supports, understands, and accommodates ADHD.

### **ADHD Foundation**

support@adhdfoundation.org.au www.adhdfoundation.org.au National Support Helpline: 1300 39 39 19

ADHD Foundation in Australia is a not-for-profit registered charity aiming to make the lives of people with ADHD better, easier and simpler. Whether it's accessing much-needed support, speaking to a trusted and professional community which can provide advice or simply being a safety network.

Please note, these resources also assist individuals that display similar traits to an individual with ADHD, and not just those that are formally diagnosed with ADHD.

### **SOCIAL SKILLS DEVELOPMENT:**

(1) John would benefit from a programme of Social Skills training and engaging in more social activities.

### **Behaviour Tonics**

352d Cambridge Street, WEMBLEY WA 6014 Phone: (08) 9285 8100 Email: info@behaviourtonics.com.au www.behaviourtonics.com.au

Behaviour Tonics offers advice, courses and training to parents, teachers and to those professionals who work with families and have done so for the last 14 years. They help adults to manage kids' behaviour calmly and effectively.

### **Connect for Kids**

99 Loftus Street, LEEDERVILLE WA 6007 Phone: 0402 101 060 www.connectforkids.com.au

# **HEALTH & WELL-BEING:**

(1) John needs to continue/implement regular exercise and maintain a healthy diet.

Please note, the above is a generic recommendation that should be followed by all and is not a recommendation specific

Please note, the above is a generic recommendation that should be followed by all and is not a recommendation specific to John due to any of his results or reported behaviours.

Dr Shane Langsford
Managing Director -PECS
Registered Psychologist

Date of Report

APS College of Educational & Developmental Psychologists Academic Member

### APPENDIX 1: WISC-V INDEX AND SUBTEST DESCRIPTIONS

# **WISC-V Primary Indexes:**

The Verbal Comprehension Index (VCI) measures the individual's ability to access and apply acquired word knowledge. More specifically the VCI is designed to measure the client's ability to verbalise meaningful concepts, think about verbal information, and express themselves using words.

The Visual Spatial Index (VSI) measures the individual's ability to evaluate visual details and understand visual spatial relationships in order to construct geometric designs from a model. This skill requires visual spatial reasoning, integration and synthesis of part-whole relationships, attentiveness to visual detail, and visual-motor integration.

The Fluid Reasoning Index (FRI) measures the individual's ability to detect the underlying conceptual relationship among visual objects and use reasoning to identify and apply rules. Identification and application of conceptual relationships in the FRI requires inductive and quantitative reasoning, broad visual intelligence, simultaneous processing, and abstract thinking.

The Working Memory Index (WMI) measures the individual's ability to register, maintain, and manipulate visual and auditory information in conscious awareness, which requires attention and concentration, as well as visual and auditory discrimination.

The **Processing Speed Index (PSI)** measures the individual's speed and accuracy of visual identification, decision making, and decision implementation. Performance on the PSI is related to visual scanning, visual discrimination, short-term visual memory, visuomotor coordination, and concentration. The PSI assesses the client's ability to rapidly identify, register, and implement decisions about visual stimuli.

The Full-Scale (FSIQ) is derived from seven subtests and summarises ability across a diverse set of cognitive functions. This score is typically considered the most representative indicator of general intellectual functioning, unless there is marked variability among the Index Composite Scores (i.e. 18+ difference between the Indexes). Subtests are drawn from five areas of cognitive ability: verbal comprehension, visual spatial, fluid reasoning, working memory, and processing speed.

# **WISC-V Ancillary Indexes:**

The Quantitative Reasoning Index (QRI) is derived from the sum of scaled scores for the Figure Weights and subtests. Quantitative reasoning is closely related to general intelligence and can indicate a child's capacity to perform mental math operations and comprehend abstract relationships. Performance on the QRI may help to predict reading and math achievement scores, creative potential, standardised test performance, and future academic success.

The Auditory Working Memory Index (AWMI) is derived from the sum of scaled scores for the Digit Span and Letter-Number Sequencing subtests. These subtests require the individual to listen to numbers and letters presented verbally, then recall or sequence them aloud. This index score measures the client's ability to register, maintain, and manipulate verbally presented information.

The **Nonverbal Index (NVI)** is derived from six subtests that do not require verbal responses. This index score can provide a measure of general intellectual functioning that minimises expressive language demands for individuals with special circumstances or clinical needs. Subtests that contribute to the NVI are drawn from four of the five primary cognitive domains (i.e., Visual Spatial, Fluid Reasoning, Working Memory, and Processing Speed).

The General Ability Index (GAI) is comprised of five subtests that provides an estimate of general intelligence that is less impacted by working memory and processing speed, relative to the FSIQ. The GAI consists of subtests from the verbal comprehension, visual spatial, and fluid reasoning domains.

The Cognitive Proficiency Index (CPI) comprises of four subtests, drawn from the working memory and processing speed domains. The CPI measures the individual's ability to process cognitive information in the service of learning, problem solving, and higher-order reasoning.

### VERBAL COMPREHENSION INDEX

### Similarities (PIS, FSIO, GAI)

The Similarities subtest involves the child being presented with two words that represent common objects or concepts and describing how they are similar. It is designed to measure verbal concept formation and abstract reasoning. It also involves crystallized intelligence, word knowledge, cognitive flexibility, auditory comprehension, long-term memory, associative and categorical thinking, distinction between nonessential and essential features, and verbal expression.

# Vocabulary (PIS, FSIQ, GAI)

The Vocabulary subtest comprises both picture and verbalised items. For picture items, the individual names the depicted object. For verbal items, the individual defines the word that is read aloud. Vocabulary is designed to measure word knowledge and verbal concept formation. It also measures crystallized intelligence, fund of knowledge, learning ability, verbal expression, long-term memory, and degree of vocabulary development. Other abilities that may be used during this task include auditory perception and comprehension, and abstract thinking.

# **Comprehension (supplementary subtest)**

The Comprehension subtest requires the individual to answer questions based on their understanding of general principles and social situations. Comprehension is designed to measure verbal reasoning and conceptualization, verbal comprehension and expression, the ability to evaluate and use past experience, and the ability to demonstrate practical knowledge and judgement. It also involves crystallized intelligence, knowledge of conventional standards of behaviour, social judgment, long-term memory, and common sense.

# **Information (supplementary subtest)**

This subtest involves the individual answering verbally presented questions that address a broad range of general knowledge topics. The subtest is designed to measure an individual's ability to acquire, retain, and retrieve general factual knowledge. It involves crystallized intelligence, long-term memory, and the ability to retain and retrieve knowledge from the environment and/or formal instruction. Other skills used include verbal perception, comprehension, and expression.

### **VISUAL SPATIAL INDEX**

# Block Design (PIS, FSIQ, GAI)

All items of the Block Design subtest require the individual to view a constructed model and/ or a picture on the client's iPad/ Stimulus Book and use red-and-white blocks to re-create the design within a specified time limit. This subtest measures the individual's ability to analyses and synthesise abstract visual stimuli. It also involves nonverbal concept formation and reasoning, broad visual intelligence, visual perception and organisation, simultaneous processing, visual-motor coordination, learning, and the ability to separate figure-ground in visual stimuli.

# Visual Puzzles (PIS)

The Visual Puzzles subtest requires the individual to view a completed puzzle and select three response options that together would reconstruct the puzzle. The subtest is designed to measure mental, non-motor construction ability, which requires visual and spatial reasoning, mental rotation, visual working memory, understanding part-whole relationships, and the ability to analyse and synthesize abstract visual stimuli. Visual Puzzles measures visual processing and acuity, spatial relations, integration and synthesis of part-whole relationships, nonverbal reasoning, and trial-and-error learning.

# FLUID REASONING INDEX

# Matrix Reasoning (PIS, FSIQ, GAI)

The individual views an incomplete matrix and selects the missing portion from five response options on the Matrix Reasoning test. The task requires the individual to use visual-spatial information to identify the underlying conceptual rule that links all the stimuli and then apply the underlying concept to select the correct response. The subtest is designed to measure fluid intelligence, broad visual intelligence, classification, and spatial ability, knowledge of part-whole relationships, and simultaneous processing. Additionally, the subtest requires attention to visual detail and working memory.

# Figure Weights (PIS, GAI)

The Figure Weights subtest involves the individual viewing a scale, which is missing weight(s) and then they have to select the response option which balances that scale. This task requires the individual to apply the quantitative concept of equality to understand the relationship among objects and apply the concepts of matching, addition, and/or multiplication to identify the correct response. The subtest measures quantitative fluid reasoning and induction. Quantitative reasoning tasks involve reasoning processes that can be expressed mathematically, emphasising inductive or deductive logic.

### **Picture Concepts (supplementary subtest)**

Picture Concepts involves the individual being presented with two or three rows of pictures and them choosing one picture in each row to form a group with a common characteristic. This test requires the individual to use the semantic representations of nameable objects to identify the underlying conceptual relationship among the objects and to apply that concept to select the correct answer. No image appears more than once within the subtest. The subtest is designed to measure fluid and inductive reasoning, visual-perceptual recognition and processing, and conceptual thinking. Additionally, this task requires visual scanning, working memory, and abstract reasoning. It may also involve crystallized knowledge.

### **Arithmetic (supplementary subtest)**

The individual mentally solves a series of orally presented Arithmetic problems within a specified time limit on the Arithmetic subtest. For both the picture and verbal items, Arithmetic involves mental manipulation, concentration, brief focussed attention, working memory, short- and long- term memory, numerical reasoning ability, applied computational ability, and mental alertness. It may also involve sequential processing; fluid, quantitative, and logical reasoning; and quantitative knowledge. Additionally, this task requires intact auditory/ linguistic processes, including auditory discrimination and comprehension, and to a lesser degree verbal expression.

# WORKING MEMORY INDEX

# Digit Span (PIS, FSIQ)

For Digit Span, the individual is read a sequence of numbers and recalls the numbers in the same order (Forward task), reverse order (Backward task), and ascending order (Sequencing task). The shift from one Digit Span task to another requires cognitive flexibility and mental alertness. All Digit Span tasks require registration of information, brief focussed attention, auditory discrimination, and auditory rehearsal. Digit Span Forward measures auditory rehearsal and temporary storage capacity in working memory. Digit Span Backward involves working memory, transformation of information, mental manipulation, and may involve visuospatial imaging. Digit Span Sequencing is designed to measure working memory and manipulation. Digit Span Sequencing is included to increase the cognitive complexity demands of the subtest. Both the backward and sequencing tasks require the resequencing of information; the primary difference is how the sequence is determined. In the backward task, the location of the number in the sequence must be maintained in working memory for proper resequencing to occur. In the sequencing task, the quantitative value of the number must be maintained in working memory and compared to numbers before and after its occurrence. In this task, the individual does not know where the number will occur in the response until all numbers are administered.

# Picture Span (PIS)

The Picture Span subtest requires the individual to memorise one or more pictures presented on the client's iPad/ stimulus book and then identify the correct pictures (in sequential order, if possible) from options on a response page. Picture Span measures visual working memory and working memory capacity. Similar tasks also involve attention, visual processing, visual immediate memory, and response inhibition. The subtest is constructed similarly to existing visual working memory tasks but is relatively novel in its use of semantically meaningful stimuli. The use of these stimuli may activate verbal working memory as well.

# **Letter-Number Sequencing (supplementary subtest)**

Letter-Number Sequencing requires the individual to read a sequence of numbers and letters and recall the numbers in ascending order and the letters in alphabetical order. Like the Digit Span tasks, Letter-Number Sequencing requires some basic cognitive processes, such as auditory discrimination, brief focussed attention, concentration, registration, and auditory rehearsal. Additionally, the task involves sequential processing, the ability to compare stimuli based on quantity or alphabetic principles, working memory capacity, and mental manipulation. It may also involve information processing, cognitive flexibility, and fluid intelligence. The higher order skills represent executive control and resource allocation functions in working memory.

# PROCESSING SPEED INDEX

### Coding (PIS, FSIO)

The Coding subtest involves the individual using a key to copy symbols that correspond with simple geometric shapes. Using a key, the individual selects each symbol in its corresponding box within a specified time limit. In addition to processing speed, the subtest measures short-term memory, visual-motor coordination, visual scanning ability, cognitive flexibility, attention, concentration, and motivation. It may also involve visual sequential processing and fluid intelligence.

# **Symbol Search**

The Symbol Search subtest requires the individual to scan a group of symbols and indicate whether the target symbol is present within a specified time limit. In addition to visual-perception and decision-making speed, the subtest involves short-term visual memory, visual-motor coordination, inhibitory control, visual discrimination, psychomotor speed, sustained attention, and concentration. It may also measure perceptual organization, fluid intelligence, and planning and learning ability.

### **Cancellation (supplementary subtest)**

For Cancellation, the individual scans two arrangements of objects (one random, on structured) and marks target objects while working within a specified time limit. The subtest measures rate of test taking, speed of visual-perceptual processing and decision making, visual scanning ability, and visual-perceptual recognition and discrimination. It may also involve attention, concentration, and visual recall.

### Please note:

Supplementary Subtests are only administered on an as needed basis when there is a significant discrepancy between the scaled scores of the Primary Subtests within an Index.

### APPENDIX 2: ABAS-3 SKILL AREAS AND COMPOSITES

### **ABAS-3 Skill Areas:**

Speech, language, and listening skills needed for communication with other
people, including vocabulary, responding to questions, conversation skills etc
Skills needed for functioning in the community, including use of community
resources, shopping skills, getting around in the community etc
Basic reading, writing, mathematics and other academic skills needed for daily,
independent functioning, including telling time, measurement, writing notes and
letters etc
Skills needed for basic care of a home or living setting (or for the Teacher Form,
school and classroom setting), including cleaning, straightening, property
maintenance and repairs, food preparation, performing chores etc
Skills needed for protection of health and to respond to illness and injury,
including following safety rules, using medicines, showing caution etc
Skills needed for engaging in and planning leisure and recreational activities,
including playing with others, engaging in recreation at home, following rules in
games etc
Skills needed for personal care including eating, dressing, bathing, toileting,
grooming, hygiene etc
Skills needed for independence, responsibility and self-control, including starting
and completing tasks, keeping a schedule. following time limits, following
directions, making choices etc
Skills needed to interact socially and get along with other people, including
having friends, showing and recognising emotions, assisting others, using
manners etc
Skills needed for successful functioning and holding a part or full-time job in a
work setting, including completing work tasks, working with supervisors, and
following a work schedule

### **ABAS-3 Composites:**

The **Conceptual Domain Composite** score is derived from the sum of scaled scores from the *Communication*, *Functional Academics* and *Self-Direction* Skill Areas. Conceptual skills include receptive and expressive language, reading and writing, money concepts and self-direction.

The **Social Domain Composite** score is derived from the sum of scaled scores from the *Social* and *Leisure* Skill Areas. Social skills include interpersonal relationships, responsibility, self-esteem, gullibility, naiveté, following rules, obeying laws and avoiding victimisation.

The **Practical Domain Composite** score is derived from the sum of scaled scores from the *Self-Care*, *Home/School Living*, *Community Use*, *Health and Safety* and *Work* Skill Areas. Practical skills include basic maintenance activities of daily living (e.g., eating, mobility, toileting, dressing), instrumental activities of daily living (e.g., meal preparation, housekeeping, transportation, taking medications, money management, telephone use) together with occupational skills and maintenance of safe environments.

The General Ability Composite (GAC) score is derived from the sum of scaled scores from seven, nine or ten skill areas, depending on the age of the individual and the type of rating form. The GAC represents a comprehensive and global estimate of an individual's adaptive functioning. The GAC describes the degree to which an individual's adaptive skills generally compare to the adaptive skills of other individuals within the same age group.

# APPENDIX 3: ASRS SCALE DESCRIPTIONS

# **ASRS SCALES**

ASRS TOTAL	Measures the extent to which the individual's behavioural characteristics are
SCORE ASRS SCALES	similar to the behaviours of youth diagnosed with Autism Spectrum Disorder.
Social/Communication	Measures the extent to which the individual uses verbal and nonverbal communication appropriately to initiate, engage in, and maintain social contact. An elevated score indicates the individual has trouble using non-verbal and verbal language appropriately to initiate, participate in, and retain social interactions
Unusual Behaviours	Measures the youth's level of tolerance for changes in routine, engagement in apparently purposeless and stereotypical behaviours, and overreaction to certain sensory experiences. An elevated score indicates the individual has difficulty accepting changes in routine, overacts to particular sensory experiences, and participates in purposeless, stereotypical behaviours.
Self-Regulation	Measures how well the individual controls his behaviour and thoughts, maintains focus, and resists distraction. An elevated score indicates the individual is argumentative, has difficulties with attention, and/or deficits in impulse/motor control.
DSM-5 SCALE	Measures how closely the individual's symptoms match the DSM-5 criteria for Autism Spectrum Disorder.
TREATMENT SCALES	
Peer Socialisation	Measures the individual's willingness and capacity to successfully engage in activities that develop and maintain relationships with other youth. An elevated score indicates a decreased willingness or capacity to effectively engage in activities that cultivate and preserve relationships with other children.
Adult Socialisation	Measures the individual's willingness and capacity to successfully engage in activities that develop and maintain relationships with adults. An elevated score indicates a decreased willingness or capacity to effectively engage in activities that cultivate and preserve relationships with adults.
Social/Emotional Reciprocity	Measures the individual's ability to provide an appropriate emotional response to another person in a social situation. An elevated score indicates that the individual has difficulty providing an appropriate emotional response to another person in a specific social situation.
Atypical Language	Measures the individual ability to utilize spoken communication in a structured and conventional way. Elevated scores indicate that verbal communication may be unconventional, unstructured, or repetitive.
Stereotypy	Measures whether the individual engages in apparently purposeless and repetitive behaviours. Elevated score may indicate that they engage in repetitive or ritualistic movements, utterances, or body posture.
Behavioural Rigidity	Measures how well the individual tolerates changes in his environment, routines, activities, or behaviours. Elevated scores indicate that the individual would prefer for environments to remain unchanged. Consequently, there is a limited ability tolerating changes in behaviour, activities, or routine.
Sensory Sensitivity	Measures the level of tolerance for certain experiences sensed through touch, sound, vision, smell, or taste. May have under or over stimulated sight, hearing, touch, smell, and/or touch. Consequently, they may be over sensitive or under sensitive to temperature, clothing, light, and/or noise.
Attention	Measures whether the individual is able to appropriately focus attention on one thing while ignoring other things Elevated scores indicate that the individual may appear disorganised or have difficulty focusing on things whilst ignoring external stimuli.